SHAREMED
First Capitalisation Workshop

Designing the future system of observing systems to assess and address threats to the Mediterranean marine ecosystem - State-of-the-art, needs and future direction

Webinar: 14-15th December, 2020

Sergio Martinez Navas
ODYSSEA

Project name: COMMON SENSE:

COST-EFFECTIVE SENSORS, INTEROPERABLE WITH INTERNATIONAL EXISTING OCEAN OBSERVING SYSTEMS, TO MEET EU POLICIES REQUIREMENTS

Project coordinator: LEITAT, Sergio Martínez Navas (smnavas@leitat.org)

Project duration: 40Months

Funding authority: FP7 The Ocean of Tomorrow 2013

Geographic extension: Europe

Other useful information: Development of sensors for innovative pollutants, interoperability with existing observing platforms.

- What kind of observations/data is your project able to provide?
  - Data acquisition platforms used: In situ measurements: research vessel, competition yachts, fish farm, harbour
  - Variables measured? Operational? Microplastics, eutrophication, heavy metals, underwater sound (operational), temperature (operational), salinity (operational)
  - At what spatial scale? small scale. Fixed equipment.
  - At what temporal scale? Real time measurements, few seconds (except heavy metals)
  - Main targeted applications/users?: Provide tools in order to support the MSFC and CFD / Environmental agencies

- What level of data dissemination do you adopt? How is your data shared and who are the main users? Data acquired during demos and pilots was interoperable with different observing systems, as well with sister projects, by using a dedicated data acquisition platform (Small Sensor Unit) and software platform

- Is your project addressing specific EU, international or regional regulations (e.g. MSFD, WFD, Ballast waters, MARPOL, …)? Mainly different indicators of MSFD and CFD

- What kind of added value do you generate from your data?

On situ measurement and near real time results, instead of in lab measurements.
For undewater noise: High resolution and classification system according to sound nature.

- How much is your collected data relevant to environmental threats or risks in the Mediterranean?

  They all are classified as emergeng pollutants, and there are diferent threats related to them.

- Which are the main gaps/needs that should be tackled to make observation systems better fit such challenges?

  Data quality and common procedures for data comparisson

- How much do you value the role of national observing systems in the framework of the European Ocean Observing System (EOOS)?

  Are directly related to scientific knowledge. Most of the work, specially in terms of modelling can run, can run due its mission

- Which technological advancements do you anticipate to impact ocean observations in the coming decade?

  Digital twins mainly for simulation

  Use of AI to predict and detect failures

- Which governance frameworks are needed to address the challenge of cross-country and cross-border observing system of systems?

- Main take home messages from your project

  We need more sensors systems and we need to make them more reliable and trustly

  There are different platforms for similar objectives

  Digitalization starts with data, if we have data gaps, or not enough data quality, monitoring, decision making, models and services can fail.